

ABSTRACT

A template for imprint lithography (IL) that reduces significantly template production costs by allowing the same template to be re-used for several technology generations. The template is composed of an array of spaced-apart moveable and individually addressable rods or plungers. Thus, the template can be configured to provide a desired pattern by programming the array of plungers such that certain of the plungers are in an "up" or actuated configuration. This arrangement of "up" and "down" plungers forms a pattern composed of protruding and recessed features which can then be impressed onto a polymer film coated substrate by applying a pressure to the template impressing the programmed configuration into the polymer film. The pattern impressed into the polymer film will be reproduced on the substrate by subsequent processing.